

## "THE RAT PROBLEM AND THE ANCIENTS"\*

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An interesting book, entitled "The Rat Problem," by Mr. W. R. Boelter, has suggested to me the subject of this paper. Mr. Boelter is, as he himself says, an "enthusiastic disciple" of Mr. Zuschlag of Copenhagen, the author of a book, called "The Rat and Civilization," who, after a persistent agitation, got a Danish Rat Law passed in Denmark for exterminating rats. The agitation of Mr. Boelter and Mr. A. E. Moore has led to the formation of a Society, called "The Incorporated Society for the Destruction of Vermin." The word 'vermin,' in the name of the Society, is used in a very broad sense, and includes many noxious creatures other than the rat. The wording of the Articles of the Memorandum of Association, describing the object of the Society, clearly indicates this. The object of the Society is "the Destruction of Noxious Vermin, including, in particular, without prejudice to others included in the general term of Vermin, Rats, Mice, Sparrows, Ticks, Fleas, Mosquitoes, and Flies, and any Parasites." This Society is agitating for the passing of a Rat Law for England, and it is expected that a Bill will be shortly introduced into Parliament.

In his book, Mr. Boelter has produced a very strong case for the extermination of the rat. A short statement of what he says about the "Natural History of the Rat" and the destruction caused by it will enable one to follow the gist of this paper.

According to Mr. Boelter, the rat most commonly known is the brown rat known as *Mus norvegicus*, once known as *Mus decumanus*, and also known as the Hanoverian rat. Tradition

says, that this kind of rat went over to England in the same ship which took the founder of the Hanoverian dynasty from Germany to England. Hence the name Hanoverian. This rat gnaws through all kinds of things, even through bricks, lead, zinc, and stone. It jumps high and even swims through long distances. Within 200 years, this species has spread throughout the whole of the world. It has great fecundity. It bears, 4 or 5 times a year, from 4 to 10 young ones, which, again, in their turn, begin to bear at the age of six months, the time of gestation being about 20 days. One pair of rats of this kind can, at this rate, produce in a year, by a succession of generations, about 880 rats.<sup>1</sup> This brown rat is said to have migrated from Asia into Europe in the middle of the 18th century. In its march and stay in Europe, it well nigh destroyed the species of the previous smaller and less savage species of the black rat (*Mus rattus*), known as the old English rat.

Some point to China, some to India, and others to Persia, as the country of Asia from which the brown rat went to Europe.

It is said, that in 1727 a great famine raged in India and severe earthquakes occurred in Persia and in the countries round about the Caspian Sea. So, the brown rat was driven away by hunger to the West, and it crossed the Volga near Astrakhan in large numbers. In 1731, it was carried into England in ships from India, and from England it went into many other countries of the world which traded with it.

The black rat, which the brown rat, migrating from the East, is said to have well nigh destroyed in Europe and in England, is itself said to be a native of the East, and is said to have migrated to the West probably from Persia in the twelfth century. It is believed by some to be a variety of *Mus Alexandrinus* and to have gone to Europe in more ancient times and to have worked destruction in the Greek plague,

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<sup>1</sup> "The Rat Problem," by W. R. Boelter, p. 88.



known as the "Plague of Athens" and also as the "Plague of Thucydides," and in the Justinian Plague. Thucydides was one of the few who had recovered from the plague known by his name.

It is believed by some that the rats went to Europe in the company of the Huns.<sup>1</sup> These Huns invaded from their home in Central Asia, Western Asia and Europe in quest of more food, in accordance with, what may be called, "the Bread and Butter Theory of Migration."<sup>2</sup>

As to whether the rat is indigenous to Europe or a foreigner, Mr. Strong says as follows :

"At what period did the rat appear in Europe, or at least in the south-west part of Europe ? On the one hand, the testimony of some zoologists is express, that rats are indigenous to Europe; others maintain, that both the species now known in Britain, the black rat and the common brown or Norwegian rat, which expelled its predecessor, are of quite late importation, the black rat having found its way to Europe about the beginning of the sixteenth century, and the brown rat having made its appearance at Astrakhan at the beginning of the eighteenth century, and in England about the middle of the same century. But rats were found at a very early date, not merely in Europe, but in England in particular."<sup>3</sup>

"But the testimony of language seems express, that the animal came from the East; the modern Greeks, for instance, call the animal *ποντικός*, the animal which came from Pontus ... Rats are called in Icelandic, Welsh or foreign mice."<sup>4</sup>

<sup>1</sup> "The Place of Animals in Human Thought," by Countess Martinengo Cezaresco, p. 82.

<sup>2</sup> "The Pulse of Asia" by Ellsworth Huntington (1907). Introduction, p. 3.

<sup>3</sup> Mr. H. A. Strong's article entitled "Some Notes on the Cat and the Rat and the Testimony of Language as to their early History," in the Academy (No. 1082) of 28th January, 1893, p. 82.

<sup>4</sup> *Ibid.*, p. 83.

Mr. Stokes suggests that the word Rotten Row, given to our streets, may be Rat Row. Some say, that it is "routine row" or rotten-row.

We learn from the above short Natural History of the rat, given by Mr. Boelter, that the modern Brown rat and the old Black rat, which the Brown rat replaced, had both gone to the West from the East, and that Persia is thought to be the probable place whence it migrated. This suggests the question: What have the Avesta and the later Pahlavi and Persian writings of the Parsees, the descendants of the Persians, to say on the subject of the Rats and other similar reptiles included under the name of 'virmins,' and on the subject of "the Rat problem", or, to speak more correctly, "the Virmin problem"?

Firstly, we find that the "Noxious Vermin, including, in particular, without prejudice to others included in the general term of Vermin, Rats, Mice, Sparrows, Ticks, Fleas, Mosquitoes, and Flies, and any Parasites," referred to in an Article of the Memorandum of Association (Article 3) of the above mentioned Society, is referred to under the general term of *Khrafstras*, or, to pronounce it in the more general way adopted by later writers, "*Kharfastars*."

The word "*Khrafstar*" (Pah. خرافستر Pers. خرفستر)

comes from the root خړ or خړ Sans. कृ to creep, and means crawling animals. So, all reptiles or creeping creatures that are noxious, are included in the term *Kharfastars*. Ants that carry away grain (*maoirîm dâno-karshem*) are specially mentioned as *Kharfastars* (*Vendidâd* XVI, 12). The lice (pl. of louse), "which give rise to the disease phthisis, or lousy disease, which is said to have occasioned death in some cases<sup>1</sup>", and which is spoken of in the *Vendidâd* (XVII, 3) as eating up corn and clothes are also specially mentioned as *Kharfastars*.

<sup>1</sup> Vide the word "Louse" in Webster's Dictionary.



As Prof. Darmesteter says, "Animals are enlisted under the standards of, either the one spirit (Spenta-mainyu, *i.e.*, the Good Spirit), or the other (Angra-mainyu, *i.e.*, the Evil Spirit). In the eyes of the Parsis, they belong either to Ormazd (the Good Spirit) or Ahriman, according as they are useful or hurtful to man."<sup>1</sup> As further pointed out by Darmesteter, "There is scarcely any religious custom that can be followed through so continuous a series of historical evidence: fifth century B. C. Herodotus I, 140; first century A. D., Plutarch, De Isid XLVI; Quaest Conviv. IV 5, 2; sixth century, Agathias II, 24; seventeenth century, G. du Chignon."<sup>2</sup>

The Parsi books speak of the good or the meritoriousness of killing the *kharfastars* or the noxious creatures that do harm to the good creation.

Herodotus refers to the Persian belief of meritoriousness in killing noxious reptiles like the mice, when he says: "They (Persians) think they do a meritorious thing, when they kill ants, serpents, and other reptiles and birds. And with regard to this custom, let it remain as it existed from the first."<sup>3</sup>

The Druj-i-Naçu, *i.e.*, the Fiend or the harming spirit of Corruption and Decomposition, which is believed to enter a body after death, is spoken of, as coming as a *Kharfatar* in the form of a fly (Vendidad VII, 2-3, VIII, 16-18, 71; IX 26).

In the Avesta (Yagna XVI, 8; LXVIII, 8), we read: "We praise milk and nourishment, the flowing waters and the growing trees.....to oppose the Musha and the Pairika...." The word Mush in this passage is variously translated by different translators. Dr. Mills, taking the word to be the same as Persian *mush*, Sans. *musha* mouse, suggests and asks, "Is it possible that a plague of mice is meant"? The passage refers to a heavenly phenomenon of meteors or comets, and we

<sup>1</sup> S. B. E. Vol. IV, 1st Edition, Introduction, p. LXXII-III.

<sup>2</sup> *Ibid.*, p. LXXIII, note 3.

<sup>3</sup> Herodotus, Bk. 1, 140. Cary's Translation (1889), p. 63.

know, that the appearance of a comet was, and is even now, believed to predict the appearance of plague or famine<sup>1</sup>. So, it is possible, that here, the allusion may be to the plague of rats, and to the belief, that such a plague is put an end to by the advance of plentifulness of food and nourishment.

The word mouse, which is similar in almost all Aryan languages, is derived from an ancient root "*mush*, to steal." We find that, in the Pahlavi Bundelesh (Chapter V), *Mushpar* which is similar to the above *mushpairika* of the Avesta, is spoken of as *duzd*, i. e., thievish.

The 43rd Chapter of the *Sad-dar*<sup>2</sup> specially treats of the subject of killing the *kharfaçtars* or noxious creatures. Therein, five kinds of noxious creatures are enumerated. Of these, the fifth is the *mush* (موش) i. e., mouse. It is said there, that if one kills a mouse, his action is as meritorious as that of killing four lions.<sup>3</sup> According to the *Sad-dar Bundelesh*, the meritoriousness of killing a mouse is worth 50 *tanâfurs*.<sup>3</sup> At first sight, this may seem to be a little exaggeration. But that is not so, when we think of the havoc worked by the domestic rat. A lion occasionally kills a man who goes into a forest, but a rat, by the plague or sickness which he spreads, kills dozens or perhaps hundreds. Again, as to the damage

<sup>1</sup> Vide my paper "A Mahomedan View of Comets," in "Revue du Monde Musulman", Vol. X, No. 1 (1910).

<sup>2</sup> S. B. E. Vol. XXIV., pp. 306-7. Vide the Gujarati *Sad-dar-i Behr-i Tavil* by Dastur Jamaspji Minocheherjee (1831), Chap. 47, pp. 244-46. Vide the Persian *Sad-dar*, Chap. XLIII pp. 33-34, and Persian *Sad-dar Bundelesh* (Chap. XXIII), p. 93, by Ervad Bomanji N. Dhabhar.

<sup>3</sup> هر که موش بکشد چندان کوفه بود که چهار شیر بکشد باشند  
(Persian *Sad-dar* by Ervad Bomanji N. Dhabhar, p. 34, l. 12.)

<sup>4</sup> A *tanâfur* تنافور is, according to the *Shâyast lâ Shâyast* (Chap. I., S.B.E., Vol. V., p. 241), equal to 300 *stirs*. Every *stir* is equal to four *dirhams*. So one *tanâfur* equals 1,200 *dirhams*, (*Sad-dar* XII, 9. S. B. E., Vol. XXIV., p. 273). Every *dirham* (درم) comes to about two pence sterling (Steingass). So, a *tanâfur* comes to 2,400 pence, i. e., about £10. So, 50 *tanâfurs* come to £500. Thus, what the *Sad-dar* means to say, is, that the meritoriousness of killing a mouse is equal to that of giving, as it were, £500 in charity.



of 50 tanafurs or £560, the life of a man may be valued by thousands. Laying aside the question of the cost of life, Mr. Boelter, speaking of the damage to property caused by a rat, says that "there are at least as many rats as there are human beings." He further says, that there are about 4 crores of rats in England alone, and that the total damage caused by them in one year comes to about £15,000,000, *i.e.*, to about 22 crores of rupees. When we bear this fact in mind, and also the fact that one pair of rats produces in the course of a year 880 rats, we are in a position to estimate the statement of the Persian Sad-dar, at its proper value.

The ancient Persians held an animal, known as *Udra*, a kind of dog, to be very sacred. We read as follows in the Vendidad: "He who kills a water dog brings about a drought that dries up pastures. Before that time, O Spitama Zarathustra! sweetness and fatness would flow out from that land and from those fields, with health and healing, with fullness and increase and growth, and a growing of corn and grass..... Sweetness and fatness will never come back again to that land ..... until the murderer of the water dog has been smitten to death."<sup>1</sup> (Vendidad, Chap. XIII, 52-54.)

This *Udra*, or *sag-i-âbi* (*i.e.* water dog), as it is called in later books, was a pet or sacred animal with the ancient Persians, probably because it destroyed the rats or other vermin which caused havoc among grain stores. In the fable of the Town and Country Mice referred to by Horace, the mouse is frightened away by dogs.

This question of the estimation of the *Udra* by the ancient Zoroastrians reminds us of the estimation in which the ancient Egyptians held the cat. The Egyptians are said to be the first among the nations of antiquity who domesticated the cat. The cat was a sacred animal in Egypt about 3,000 years ago, because it destroyed the rat and protected the grain of "the granary of the ancient world." Temples were erected and

<sup>1</sup> S. B. E., Vol IV, p. 164.

sacrifices and devotion offered in their honour. When a cat of the house died, the members of the family shaved their eyebrows as a token of mourning. It was embalmed and preserved in tombs. "He who killed a cat was regarded as a murderer and suffered the death penalty. Diodorus Siculus says 'Their lives and safeties were held more dearly than those of any other animal, whether biped or quadruped'.

"When Ptolemy was doing all he could to conciliate the Roman power, a Roman accidentally killed a rat, and the people rushed to his house; and neither the entreaties of the grandees, whom the king sent for the purpose, nor the terror of the Roman name, could protect him from punishment. 'I do not relate this anecdote', adds Diodorus, 'on the authority of another,' for I was an eye-witness of it during my stay in Egypt."<sup>1</sup>

What we see in the case of the *udra* of the Irânians and the cat of the Egyptians, is an illustration of the fact, that in the case of many animals, their "very utility came to invest them with a special sanctity."<sup>2</sup> Dr. Norman McLeod supports this view when he says, "I would give nothing for a man's religion whose cat or dog was not the better for it."

Over and above the usefulness of the cat for the work of killing the rats, "other observers have claimed for the cat certain hygienic value." When patting them with gentle passes of our hands "we unconsciously derive in turn a current of electricity." "Its surcharge of electric fluid" says the Rev. J. G. Wood, "makes it a beneficial companion for persons suffering from nervous complaints."<sup>3</sup>

The fact, why cats and such other useful animals were attached and dedicated to temples, and why temples were even dedicated to them, can be explained by the use of cats made

<sup>1</sup> The Rat Problem, by W. R. Boelter, p. 20.

<sup>2</sup> "Some Notes on the Cat and the Rat." Academy of 23th January 1893, No. 1082, p. 81.

<sup>3</sup> Evening Standard, quoted in the Times of India of 30th April 1893.



in ancient Egypt. "It seems probable that they were attached in numbers to particular temples, and confined in the precincts of these."<sup>1</sup> From these temples, they were taken in a body to hunt, not only the rats, but also other noxious creatures that infested the country.<sup>2</sup> Thus they came to be associated with temples. The association of monkeys with some temples in India may have a similar origin in the beginning.

As Mr. Strong says, "It was the patient and gifted nation of the Nile valley . . . that first tamed the cat,"<sup>3</sup> by "steady perseverance, extending through countless generations."<sup>4</sup> It was, therefore, "hardly strange that the Egyptians should deify an animal which must have puzzled them so much to tame, and, when tamed, served them so well."<sup>5</sup>

Among the ancient Greeks, the rat, like some other reptiles or animals, played some part in giving good or bad omens. Plutarch, in his *Life of Marcellus*, says that, "because the squeaking of a rat happened to be heard at the moment that Minucius the dictator appointed Caius Flaminius his general of horse, the people obliged them to quit their posts, and appointed others in their stead."<sup>6</sup> The Greeks employed, instead of the cat, an animal called *ailuros* for killing rats. In Egypt, the *ichneumon* was known as the destroyer of rats and mice.

The cats being scarce in Europe in the Middle Ages, several countries had special laws for their protection, and those who injured or killed them were fined.<sup>7</sup> In 1284, in Hameln in Hanover, a piper was engaged to free by his music the town from the rat-plague.

<sup>1</sup> "Some Notes on the Cat and the Rat," by Mr. H. A. Strong (Academy, 28th January 1893, p. 82).

<sup>2</sup> *Ibid.*, p. 81.

<sup>3</sup> *Ibid.*, p. 81.

<sup>4</sup> *Ibid.*, p. 81.

<sup>5</sup> *Ibid.*, p. 82.

<sup>6</sup> Plutarch's *Lives*, translated by John and William Langhorne (1812) Vol. I, p. 505.

<sup>7</sup> "The Rat Problem" by Boelter, p. 24.

Apollo was the plague-god of the ancient Greeks. "All sudden deaths were believed to be the effect of the arrows of Apollo; and with them he sent the plague into the camp of the Greeks."<sup>1</sup> "Pestilence and death by an unseen cause . . . were traced to him."<sup>2</sup> As the plague and mouse god, he is "represented holding in one hand the bow, and in the other, the still more dangerous mouse. We find him as plague-sender in the first song of the Iliad,<sup>3</sup> where he smites the Greeks with this sickness as a punishment for Agamemnon's crime against the daughter of the priest Chryses. The mice were his messengers, and a number of white mice were fed on his altar."

It was believed in ancient Greece and Rome that "fields sown with seed can be protected from mice by scattering the ashes of cats upon them.

According to the Old Testament (I Samuel), the Philistines were, during a war with the Israelites, attacked by plague. This was a plague of emerods, a kind of piles in their secret parts. Their priests being consulted, advised them to offer the trespass offering of "five golden emerods and five golden mice."<sup>4</sup> These mice are spoken of there, as marring the land.<sup>5</sup>

"Avicenna recognised a connection between rat and plague during the outbreak in Mesopotamia, and refers to the fact that, on the approach of plague, mice and other animals which usually live underground, leave their holes and move about in a staggering manner as if they were drunk."<sup>6</sup>

The folk-lore of some nations points to the rat, as the cause of the traditional hatred between the dog and the cat. "The hatred between cat and dog is an old legend in

<sup>1</sup> Smith's Classical Dictionary (1872), p. 63, word Apollo.

<sup>2</sup> Encyclopædia Britannica, Vol. II, p. 186.

<sup>3</sup> "The Rat Problem," by W. R. Boelter, p. 79, Iliad, Bk. I.

<sup>4</sup> I Samuel VI. 5.

<sup>5</sup> *Ibid.* 5.

<sup>6</sup> "The Rat Problem" by Boelter, pp. 79-80.



Palestine. Once upon a time, when the world was young, to each and every kind of animal a duty was assigned. The dog and the cat were relieved from menial duty, because of the faithfulness of the one and the cleanliness of the other, and a written document was given them in attestation thereof, and the dog took charge of it. He buried it where he kept his stock of old bones, but this privilege of exemption so roused the envy of the horse, ass, and ox that they bribed the rat to burrow underground and destroy the charter. Since the loss of this document the dog has been liable, on account of his carelessness, to be tied or chained up by his master, and what is more, the cat has never forgiven him.”<sup>1</sup>

The traditional hatred between the cat and the rat plays its part in some of the magical Hate-charms. In Hebrew magic, a quarrel between a man and his wife was believed to be produced by the following charm:—The egg of a black hen was boiled in urine and one half of it was given to a dog and the other half to a cat, “with the charm ‘As these hate one another, so may hatred fall between N. and N.’”<sup>2</sup>

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<sup>1</sup> “Semitic Magic,” by B. C. Thompson, Introduction, pp. xiv-vi.

<sup>2</sup> *Ibid.* p. lxy.